

## REMARKS

The present amendment is submitted in response to the Final Office Action dated December 22, 2000, which set a shortened three-month period for response, making this Amendment due by March 22, 2001.

Claims 16-31 are pending in the application.

In this Final Office Action, the rejections contained in the Office Action of July 19, 2000 were repeated. Specifically, claims 20 and 25-27 continue to stand rejected under 35 U.S.C. 112, second paragraph, for alleged indefiniteness.

Claims 16-18, 20, 22-27, and 29-31 continue to stand rejected under 35 U.S.C. 103 over U.S. Patent No. 5,882,786 in view of U.S. Patent No. 2,521,846 to Gregory.

Claims 19, 21 and 28 continue to be rejected under 35 U.S.C. 103 over Nassau in view of Gregory and further in view of U.S. Patent No. 5,431,028 to Lampert.

With regard to the rejection of claim 20 under Section 112 for use of the term "hard metals", Applicants have amended claim 20 to more clearly recite the intended type of metal, namely, a metal having a hardness sufficient to allow a coating of the precious stone layer to be applied. Support for this amendment can be found in the specification on page 3, lines 20-25. Applicants did not previously amend claim 20 in this manner, because, as argued in the response to the July 19, 2000 Office Action, Applicants believe the term "hard metals" to be a technical term of art. Therefore, Applicants respectfully request entry of this amendment to claim 20.

Regarding the continued rejection of claims 25 and 26 under Section 112 for use of the "indefinite" term "pyramid angle", the Applicants direct the Examiner's attention to the specification, page 4, lines 8-14, and to the accompanying figures. As explained in the specification, the "pyramid angle" refers in the most basic terms to the angles of the pyramid; that is, the angle formed between adjoining faces of the pyramid shape.

The Applicants have amended claim 16 to include this language. (Claim 25 has been appropriately amended). Thus, Applicants submit that this term, as now set forth in claim 16, and when read with the specification, is not vague. The Applicants therefore request withdrawal of the rejection of claims 25 and 26 under Section 112.

With regard to the continued rejection of claim 27 for use of the allegedly indefinite term "grain boundaries", the Applicants direct the Examiner's attention to the specification, page 5, lines 4-16, where the concept of "grain boundaries" is explained. Specifically, in contrast to a single crystal diamond, crystal grain boundaries are present in a polycrystalline artificial diamond layer. These grain boundaries, i.e., the crystal orientation contained in the precious stone layer, offer additional refracting areas, which have different refractive indices. Thus, these grain boundaries must be taken into account during the etching process in order to produce the desired inventive effect of brilliance and fire of the gemstone. When applying the precious stone layer, then, to produce the claimed gemstone, it is necessary to make sure that the grain boundaries are advantageously aligned with

respect to their structures; preferably, in a column-like arrangement as the precious stone layer is applied in order to achieve the desired effect. Thus, Applicants submit that the term "grain boundaries", as claimed in claim 27, is not indefinite when read with the appropriate portions of the specification.

Turning now to the continued substantive rejection of the claims under Section 103 over the above combination of references, amended claim 16 now includes a portion of the features of claim 25, namely, that each of the at least one pyramid-shaped depression has a pyramid angle formed between adjoining faces of said at least one pyramid-shaped depression. Claim 16 further includes the limitations that the precious stone layer has an upper surface facing away from the plate-shaped support and an underside having at least one pyramid-shaped projection arranged to correspondingly fit a respective one of the at least one pyramid-shaped depression. Finally, the proposed amendment to claim 16 also adds that the precious stone layer imparts decorative, light-reflective qualities.

The Applicants respectfully submit that the cited combination of references neither shows nor suggests the claimed combination of features of amended claim 16. The Applicants therefore submit that amended claim 16, and its remaining dependent claims 27-24, 26-28, and 30-31, are allowable and request reconsideration of the stated grounds for rejections.

Applicants respectfully request entry of the amendments to claims 16, 20 and 25, since these amendments address and overcome the stated grounds for rejection under Section 112, thus placing the application in better condition for appeal.

In light of the foregoing amendment and comments in support of patentability, the Applicants respectfully submit that this application now stands in condition for allowance over the art of record and over the formal objections to the claims. Action to this end is courteously solicited. Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,

  
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for applicants

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**Versions with markings showing changes made :**

16. (Amended) Gemstone comprising:

a plate-shaped support having a surface with at least one pyramid-shaped depression, each said at least one pyramid-shaped depression having a pyramid angle formed between adjoining faces of said at least one pyramid-shaped depression; and

a precious stone layer (1) produced by vapor phase deposition on said plate-shaped support for imparting decorative, light-reflective qualities to said gemstone, said precious stone layer (1) having an upper surface facing away from said plate-shaped support and an underside, said underside having at least one pyramid-shaped projection arranged to correspondingly fit a respective one of said at least one pyramid-shaped depression.

20. (Amended) Gemstone according to claim 16, wherein said plate-shaped support is comprised of [hard] a metal having a hardness sufficient to coat said plate-shaped support with said precious stone layer.

25. (Amended) Gemstone according to claim 16, [wherein each said at least one pyramid-shaped depression within said plate-shaped support includes a pyramid angle,] wherein each said pyramid angle comprises an angle measurement differing from an angle measurement of any other pyramid angle.